

location.

46. (previously presented) The apparatus of claim 38, where the anchoring members are substantially oval in cross-section.

47. (previously presented) The apparatus of claim 38, where the anchoring members have a top portion and the top portion is substantially flat.

Claims 48-59 (canceled)

60. (previously presented) The apparatus of claim 28, where the tubular element is a catheter.

61. (previously presented) The apparatus of claim 28, where the deployment means further comprises a guide wire having a proximal end and a distal end, and where the inner lumen is a collar member attached to the distal end of the guide wire.

62. (previously presented) The apparatus of claim 28, where the anchoring members comprise a pseudoelastic material.

REMARKS

Claims 1, 2, 7 to 11, 22, 24 to 27 and 60 to 62 are currently pending in this application. All of the claims have been rejected. Claims 1, 28 and 38 have been amended. All of the amendments find full support in the specification and drawings as filed. No new matter has been added. In view of the above amendments and the following remarks, Applicants respectfully submit that this application is in condition for allowance. Therefore, reconsideration and a timely Notice of Allowance is respectfully requested.

As an initial matter, the Examiner rejected claims 1, 2, 7 to 11, 22, 24 to 47, and 60 to 62 under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. In particular, the Examiner alleges that claims 1, 28, and 38 are indefinite because it is not clear how the tubular element is anchored in the passageway if the anchoring members are the ones anchoring the deployment element.

Applicants have amended claims 1, 28 and 38 to state that the anchoring members

anchor the deployment element. The amendments find full support in FIGS. 3 and 4 of the application as filed. In view of the amendments to claims 1, 28, and 38, Applicants respectfully request that this rejection be withdrawn with regard to claims 1, 28, and 38.

Although not stated in the rejection, Applicants presume that the Examiner rejected claims 2, 7 to 11, 22, 24 to 37, 39 to 46, and 60 to 62 as being dependent upon rejected independent claims 1, 28, and 38. In view of the amendments to claims 1, 28, and 38 as discussed above, Applicants respectfully request that this rejection be withdrawn with regard to claims 2, 7 to 11, 22, 24 to 27, 29 to 37, 39 to 47, and 60 to 62.

The Examiner rejected claims 1, 2, 11, and 22 under 35 U.S.C. § 102(b) as allegedly being anticipated by Cathcart et al. (U.S. Patent No. 5,681,347). Applicants respectfully traverse this rejection. The Examiner contends that Cathcart et al. discloses a device (10) comprising a tubular element (13) comprising a hollow tubular lumen, a deployment element (17, 20) having an inner lumen and a plurality of resilient anchoring members (24) attached to the distal end of the inner lumen. The Examiner asserts that the word “attached” means to join or connect. The Examiner then asserts that the word “join” is being used as “to put into close association or relationship” according to Webster’s II Dictionary.

Applicants submit that the Examiner’s rejection is fatally defective because Cathcart et al. does not teach or suggest the limitation of claim 1 of “a plurality of resilient anchoring members attached to the distal end of the inner lumen.” Words and claims are to be given their ordinary meaning in the absence of indication in the application to the contrary. Gentex Corp. v. Donnelly Corp., 69 F.3d 527, 530, 36 U.S.P.Q.2d 1667, 1669 (Fed. Cir. 1995). The Examiner is taking the word “attached” and finding what the Examiner believes is a synonym, namely the word “join,” and then looking up the dictionary definition of the synonym. Applicants respectfully submit that the ordinary meaning of “attach” is to “cause to adhere; to tie, bind or fasten; as to attach one thing to another by a string, by glue, etc.” as defined in the Webster’s New 20th Century Dictionary, Second Ed., copyright 1983 by Simon and Schuster, New York, New York, 10020. As explained in Cathcart et al. at column 5,

lines 57 to 60, “referring to Fig. 3, a cup shaped portion 21 engages a proximal end 22 of a device 23, such as a vena cava filter, having radial extending penetrating or hook portions 24.” The proximal end of the device is not attached to the cup shaped portion 21 but rather is merely positioned up against it. If the device 23 was “attached” to the cup shaped portion 21, then the delivery system 10 could not be separated and withdrawn, as required after deployment of device 23 (see column 7, lines 11-12). Thus, the Examiner’s proposed “attachment” would prevent Cathcart’s device from operating as the inventor intended.

The Examiner suggests that the Applicants adopt the phrase “permanently attached” to overcome Cathcart et al. Applicants respectfully decline the Examiner’s suggestion because Applicants respectfully submit that Cathcart et al. does not teach “a plurality of resilient anchoring members attached to the distal end of the inner lumen.” Moreover, Applicants respectfully submit that the Examiner’s proposed language is unnecessarily restrictive.

Moreover, Applicants submit that Cathcart et al. does not teach or suggest the limitation of claim 1 that “each anchoring member [is] reversibly moveable by the deployment element between the first position and the second position.” Applicants respectfully submit that the vena cava filter taught by Cathcart et al. is not moveable from a position where at least a portion of each anchoring member is deployed exteriorly to the outer lumen back into the first position. Therefore, Applicants respectfully submit that Cathcart et al. does not teach the claim limitation of “reversibly moveable.” Therefore, Applicants respectfully request that this rejection be withdrawn with regard to claim 1.

Claims 2, 11 and 22 are dependent from claim 1 and by definition contain all of the limitations of claim 1. Therefore, Applicants respectfully submit that claims 2, 11 and 22 are patentable over Cathcart et al. for the reasons given above with regard to claim 1 as well as because of the additional limitations contained therein. Therefore, Applicants respectfully request that this rejection be withdrawn with regard to claims 2, 11 and 22.

The Examiner rejected claims 1, 2, 7, 10, 11 and 22 under 35 U.S.C. § 102(b) as allegedly being anticipated by Goldberg et al. (U.S. Patent No. 5,152,777). Applicants submit

that the Examiner's rejection is fatally defective, because Goldberg et al. does not teach or suggest the limitation of claim 1 that the deployment element has an inner lumen, and that "the inner lumen has a bore extending completely through the inner lumen from the proximal end to the distal end." As explained in the application on page 11, the inner lumen of the deployment element allows liquids to be transported through the bore to the passageway site, and devices, such as a transducer, to be inserted and used at the site.

Goldberg et al. is directed to a blood vessel filter (trap) delivery system. There is nothing in Goldberg et al., that addresses the problem of how to anchor a sensing device at a specific location within a passageway of a mammalian patient. Goldberg et al. does not teach or suggest an anchoring system using an inner lumen having a bore extending completely through the inner lumen from the proximal end to the distal end.

As explained in Col. 7, lines 43 to 63 of Goldberg et al., the trap has a stem 60; the stem 60 has a proximal end 90. To introduce the trap to the appropriate location, the proximal end of the stem is threaded onto an extension stem 92. The trap, stem and extension stem are drawn into an introducer/remover apparatus. Applicants submit that the extension stem 92 is part of the deployment device. As explained at Col. 7, lines 53-56 and shown in Fig. 5A, the trap stem 90 is threaded at 94 to receive trap extension stem 92 having mating threaded end 96. Applicants respectfully submit that the innermost passageway is blocked at the junction of elements 94 and 96. Therefore, Goldberg does not teach or suggest a deployment element having "a bore extending completely through the inner lumen from the proximal end to the distal end."

Goldberg et al. is directed to a catheter for deploying a filter, not to anchoring a catheter within a passageway formed in a mammalian body to perform measurements. Applicants respectfully submit that one skilled in the art would have no motivation to modify Goldberg et al. to teach the limitation of claim 1 that "the inner lumen has a bore extending completely through the inner lumen from the proximal end to the distal end."

Thus, Applicants submit that claim 1 is novel and nonobvious over Goldberg et al.

Claims 2, 7, 10, 11, and 22 all depend from claim 1 and by definition contain all of the limitations of claim 1. Therefore, claims 2, 7, 10, 11, and 22 are novel and nonobvious over Goldberg et al. for the same reason that claim 1 is patentable over Goldberg et al. Therefore, Applicants respectfully request that this rejection be withdrawn.

The Examiner rejected claims 38 to 40, 44 and 45 under 35 U.S.C. § 102(e) as allegedly being anticipated by Hayashi (U.S. Patent No. 5,910,144). Specifically, the Examiner states that Hayashi discloses a prosthesis gripping system comprising a tubular element 20, 26 comprising a hollow tubular lumen, a deployment element 50, and a plurality of resilient anchoring members 40 as claimed. Applicants submit that Hayashi does not teach or suggest the limitation of claim 38 that the deployment element has an inner lumen and that, “the inner lumen has a bore extending completely through the inner lumen from the proximal end to the distal end.”

The Hayashi reference teaches a prosthesis gripping system for enabling the manipulation of a prosthesis deployed or implanted at a repair site. As is the case with the Cathcart et al. and the Goldberg et al. references, the Hayashi reference is not directed to the problem of how to locate a sensor at a specific location within the passageway of a mammalian patient. Therefore, it is not surprising that Hayashi fails to teach the use of an inner lumen having “a bore extending completely through the inner lumen from the proximal end to the distal end.”

Hayashi teaches a tubular element 20, 26 having a channel 24. (See Col. 3, lines 59-63). Applicants submit that the channel 24 corresponds to the hollow tubular outer lumen in claim 38. A wire 36 extends through the channel 24. See, Col. 4, lines 4-7. In one embodiment of Hayashi, elements 40 for gripping a prosthesis are attached directly to the end of the wire. See, Col. 4, lines 11-14. In another embodiment of Hayashi, a tube 50 is secured to the distal end of the wire, and extends about the secured ends 42 of elements 40 to crimp the joint between wire 36 and secured ends of elements 40. See, Col. 4, lines 26-29. Applicants respectfully submit that the wire is the deployment means and that the wire does not have a

bore. Applicants also respectfully submit that even if the tube 50 is considered to be the deployment means, the crimping of the tube 50 to form the joint between the wire 36 and the secured ends 42 of elements 40 necessarily closes off the proximal end of the tube 50.

Accordingly, Hayashi fails to teach or suggest the use of an inner lumen having "a bore extending completely through the inner lumen from the proximal end to the distal end." Thus, Hayashi does not teach or suggest all of the limitations of claim 38.

As explained above, Hayashi is directed to a prosthesis gripping system for enabling the manipulation of a prosthesis deployed or implanted at a repair site, not to anchoring a catheter within a passageway formed in a mammalian body to perform measurements. Applicants respectfully submit that one skilled in the art would have no motivation to modify Hayashi to teach the limitation of claim 38 that "the inner lumen has a bore extending completely through the inner lumen from the proximal end to the distal end."

Thus, Applicants submit that claim 38 is novel and nonobvious over Hayashi. Claims 39, 40, 44 and 45 all depend from claim 38 and by definition contain all of the limitations of claim 38. Therefore, claims 39, 40, 44 and 45 are patentable over Hayashi for the same reasons that claim 38 is patentable over Hayashi. Therefore, Applicants respectfully request that this rejection be withdrawn.

The Examiner rejected claims 8 to 10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Cathcart et al. in view of Hayman et al. (U.S. Patent No. 5,267,960) and Abrams (U.S. Patent No. 5,492,119). The Examiner has also rejected claims 8, 9, 26, and 62 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Goldberg et al. in view of Abrams. The Examiner has also rejected claim 27 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Goldberg et al. in view of Lefebvre (U.S. Patent No. 5,938,683). The Examiner has also rejected claims 24, 25, 28 to 30, 33 to 36, 60, and 61 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Goldberg et al. in view of Hayashi. The Examiner has also rejected claims 31 and 32 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Goldberg et al. in view of Hayashi, and further in view of Abrams. The

Examiner has also rejected claims 37 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Goldberg et al. in view of Hayashi in further view of Lefebvre. The Examiner has also rejected claims 41-43, and 46 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hayashi in view of Abrams and Hayman et al. The Examiner has also rejected claim 47 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hayashi in view of Lefebvre (U.S. Patent No. 5,938,683).

All of the rejections under 35 U.S.C. § 103 are based principally upon either Cathcart et al., Goldberg et al., or Hayashi. As explained above, none of these three references are directed to the problem of how to specifically locate a sensing device within the passageway of a mammalian patient. Accordingly, none of these three primary references discloses or fairly suggests, in any way, a method of anchoring a catheter having an inner lumen through which a sensing device can be transported, i.e., an inner lumen having a bore which extends "completely through the inner lumen from the proximal end to the distal end." Moreover, nothing in any of the secondary references discloses or suggests this very important feature of the invention.

Accordingly, since no combination of any of the references cited in this application disclose or fairly suggest the use of an inner lumen having a bore extending from its distal end to its proximal end, there is no basis for deeming obvious any of the claims in this application. No individual of ordinary skill in the art, having knowledge of the references cited in the application, would have found it obvious to provide the unique anchoring system of the invention, including the use of an inner lumen having a bore extending completely through the inner lumen from the proximal end to the distal end. Accordingly, Applicants respectfully request that all rejections under 35 U.S.C. § 103 be withdrawn.

In view of the above amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Reconsideration and a timely indication of allowance is therefore respectfully requested.

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Respectfully submitted,

SHELDON & MAK PC

Date: September 30, 2003

By: 

Marc Karish

Reg. No. 44,816

SHELDON & MAK PC
225 South Lake Avenue, Suite 900
Pasadena, California 91101
626/796-4000